thickness of about one-quarter to one-third wavelength at a wavelength between 480 and 560 nanometers.

148. (Amended) A process for making a coated article, comprising the steps of:

providing a temperature-sensitive substrate having a melting point lower than glass and a surface for receiving an anti-reflection coating;

depositing an anti-reflection coating including a plurality of layers transparent to visible light on said surface, said depositing step including the steps of sputtering at least two layers of high refractive index material selected from the group consisting of tin oxide, indium oxide, zinc oxide, tin-doped indium oxide, antimony-doped tin oxide, tin-bismuth oxide, and tin-zinc oxide, and having an index of refraction between approximately 1.9 and 2.2 wherein the layer of high refractive index material farthest from the substrate has an optical thickness of about one-quarter to one-third wavelength at a wavelength from 480 to 560 nanometers; and

depositing at least one layer of a low refractive index material having a refractive index lower than said high refractive index material wherein one of said low refractive index material layers is deposited between said high refractive index material layers.

188. (Amended) An anti-reflection coating for a substrate comprising:

four layers substantially transparent to visible light and designated the first, second, third, and fourth layers in consecutive numerical order beginning with the layer farthest from the substrate;

said first layer composed of silicon dioxide having a refractive index lower than said substrate, and optical thickness of about one-quarter wavelength at a wavelength between 480 and 560 nanometers, and a physical thickness of about 94.2 nanometers;

said second layer composed of tin oxide having a refractive index higher than said substrate, an optical thickness between about one-quarter and one third of a wavelength at a wavelength between 480 and 560 nanometers, and a physical thickness of about 76.4 nanometers;

said third layer composed of silicon dioxide having a refractive index lower than said second layer and a physical thickness of about 31.9 nanometers;

said fourth layer composed of tin oxide having a refractive index greater than said third layer and a physical thickness of about 20.3 nanometers; and

said third and fourth layers having a total optical thickness less than one-quarter wavelength at a wavelength between 480 and 560 nanometers.

22 10. (Amended) An anti-reflection coating, for a substrate, comprising:

four layers transparent to visible light and designated the first, second, third, and fourth layers in consecutive numerical order beginning with the layer farthest from the substrate;

said first layer composed of silicon dioxide having a refractive index lower than said substrate, an optical thickness of about one-quarter wavelength at a wavelength between 480 and 560 nanometers, and a physical thickness of about 92.2 nanometers;

said second layer composed of tin oxide having a refractive index higher than said substrate, an optical thickness between one-quarter and one third of a wavelength at a wavelength between 480 and 560 nanometers, and a physical thickness of about 78.1 nanometers;

said third layer composed of silicon dioxide having a refractive index lower than said second layer and a physical thickness of about 32.2 nanometers;

said fourth layer composed of tin oxide having a refractive index greater than said third layer and a physical thickness of about 18.6 nanometers; and

said third and fourth layers having a total optical thickness less than one-quarter wavelength at a wavelength between 480 and 560 nanometers.

---

12 11. (Amended) The article of claim 7 wherein said plurality of layers includes four layers designated the first, second, third and fourth layers in consecutive numerical order beginning with the layer farthest from the substrate,

said first layer composed of silicon dioxide with a refractive index lower than said substrate and having an optical thickness of about one-quarter wavelength at a wavelength between 480 and 560 nanometers,

said second layer having a refractive index higher than said substrate and between approximately 1.9 and 2.2 and having an optical thickness between about one-quarter and one-third of a wavelength at a wavelength between 480 and 560 nanometers and comprising one of said two layers,

said third layer having a refractive index lower than said second layer and comprising said one other layer,

said fourth layer having a refractive index greater than said third layer and comprising the other of said two layers, said third and fourth layers having a total optical thickness less than one-quarter wavelength at a wavelength between 480 and 560 nanometers, and said second and fourth layers being said selected sputtered material.

26 ~~33~~. (Amended) An article comprising:

(a) a temperature-sensitive substrate having a melting point lower than glass; and

(b) an anti-reflective coating comprising a plurality of layers transparent to visible light beginning with the first layer being farthest from said substrate, wherein:

(1) a first layer and a third layer are composed of silicon dioxide; and

(2) a second layer and a fourth layer have refractive indices between approximately 1.9 and 2.2 and are each composed of and selected from the group consisting of tin oxide, indium oxide, zinc oxide, tin-doped indium oxide, antimony-doped tin oxide, tin-bismuth oxide, and tin-zinc oxide, wherein said second layer has an optical thickness of about one-quarter to one-third wavelength at a wavelength from 480 to 560 nanometers.

29 ~~36~~. (Amended) An article comprising:

(a) a temperature-sensitive substrate having a melting point lower than glass; and

(b) an anti-reflection coating comprising a plurality of layers transparent to visible light, wherein:

(1) a first layer and a third layer are composed of silicon dioxide and

(2) a second layer and a fourth layer have refractive indices between approximately 1.9 and 2.2, and wherein the second and fourth layers are each composed of and selected from the group consisting of tin oxide, indium oxide, zinc oxide, tin-doped indium oxide, antimony-doped tin oxide, tin-bismuth oxide, and the tin-zinc oxide, wherein the second layer has a thickness of between approximately 77.11 and 78.13 nm.

30 37. (Amended) An article comprising:

(a) a temperature-sensitive substrate having a melting point lower than glass; and

(b) an anti-reflection coating comprising a plurality of layers transparent to visible light, wherein:

(1) a first layer and a third layer are composed of silicon dioxide; and

(2) a second layer and a fourth layer have refractive indices between approximately 1.9 and 2.2, and wherein the second and fourth layers are each composed of and selected from the group consisting of tin oxide, indium oxide, zinc oxide, tin-doped indium oxide, antimony-doped indium oxide, tin-bismuth oxide, and tin-zinc oxide, wherein the fourth layer has a thickness of between approximately 18.64 and 22.83 nm.

Cont'd 31

38. (Amended) A method for providing an anti-reflection coating to a plastic substrate, wherein the coating comprises a first, second, third and fourth layer in consecutive numerical order, each layer being transparent to visible light, with the first layer being farthest from the substrate, comprising:

depositing the fourth layer by reactive sputtering, wherein the fourth layer is composed of tin-doped indium oxide having an index of refraction between approximately 1.9 and 2.2;

depositing the third layer on the fourth layer by reactive sputtering, wherein the third layer is composed of silicon dioxide;

depositing the second layer on the third layer by reactive sputtering at an optical thickness of about one-quarter to one-third wavelength at a wavelength from 480 to 560 nanometers, wherein the second layer is substantially composed of tin-doped indium oxide having an index of refraction between approximately 1.9 and 2.2; and

depositing the first layer on the second layer by reactively sputtering, wherein the first layer is substantially composed of silicon dioxide.

33 ~~39.~~ (Amended) An anti-reflection coating for a plastic substrate comprising:

(1) a first layer composed of silicon dioxide;

(2) a conductive second layer, closer to the substrate than the first layer, composed of tin-doped indium oxide having an index of refraction between approximately 1.9 and 2.2 and an optical thickness of about one-quarter to one-third wavelength at a wavelength from 480 to 560 nanometers;

(3) a third layer, closer to the substrate than the second layer, composed of silicon dioxide; and

(4) a conductive fourth layer, closer to the substrate than the third layer, composed of tin-doped indium oxide having an index of refraction between approximately 1.9 and 2.2,

wherein the first, second, third and fourth layers are transparent to visible light.

35 ~~40.~~ (Amended) A method for providing an anti-reflection coating to a plastic substrate, wherein the coating comprises a first, second, third and fourth layer in consecutive numerical order with the first layer being farthest from the substrate, wherein each layer is transparent to visible light, comprising:

depositing the first and third layers by reactive sputtering, wherein the first layer is composed of silicon dioxide; and

depositing the second and fourth layers by reactively sputtering, wherein the second and fourth layers have an index of refraction between approximately 1.9 and 2.2, are composed of and selected from the group consisting of tin oxide, indium oxide, zinc oxide, tin-doped indium oxide, antimony-doped tin oxide, tin-bismuth oxide, and tin-zinc oxide and wherein said second layer is applied at an optical thickness of about one-quarter to one-third wavelength at a wavelength from 480 to 460 nanometers.

39 ~~43~~. (Amended) An anti-reflection coating for a plastic substrate comprising:

a plastic substrate and a coating wherein said coating includes,

four layers transparent to visible light designated the first, second, third and fourth layers in consecutive numerical order beginning with the layer farthest from the substrate, said first and third layers comprised of silicon dioxide and said second and fourth layers having a refractive index higher than said substrate and between 1.9 and 2.2 and selected from the group consisting of tin oxide, indium oxide, zinc oxide, tin-doped indium oxide, antimony-doped tin oxide, tin-bismuth oxide and tin-zinc oxide; and

said second layer having an optical thickness of about one-quarter to one-third of a wavelength at a wavelength of about 480 to 560 nanometers.

41 ~~49~~. (Amended) An anti-reflective coating for a plastic substrate consisting essentially of:

a plurality of high refractive index material layers transparent to visible light, having a refractive index between 1.9 and 2.2 and selected from the group consisting of tin oxide, indium oxide, zinc oxide, tin-doped indium oxide, antimony-doped tin oxide; tin-bismuth oxide and tin-zinc oxide and wherein the high refractive index material layer farthest from said substrate has an optical thickness of about one-quarter to one-third wavelength at a wavelength from 480 to 560 nanometers; and

at least one low refractive index material layer having a refractive index material layer lower than each of said plurality of high refractive index material layers wherein one of said at least one low refractive index material layers is disposed between adjacent ones of said plurality of high refractive index material layers.

43 ~~50~~. (Amended) An anti-reflection coating for a plastic substrate comprising:

a plurality of high refractive index material layers comprising first and second high refractive index material layers transparent to visible light having a refractive index higher than said substrate and between 1.9 and 2.2 and selected from the group consisting of tin oxide,

indium oxide, zinc oxide, tin-doped indium oxide, antimony-doped tin oxide, tin-bismuth oxide and tin-zinc oxide; and

at least one low refractive index material layer having a refractive index lower than said substrate wherein said at least one low refractive index material layer is positioned between said first and second high refractive index material layers and the high refracting index material layer farthest from said substrate has an optical thickness of about one-quarter to one-third wavelength at a wavelength from 480 to 560 nanometers.

Cancel claims 35, 47 and 51-53.

Add the following new claims 54-62:

54. (New) The article of claim 1 wherein the low refractive index material farthest from said substrate has an optical thickness of about one-quarter wavelength at a wavelength from 480 to 560 nanometers.

55. (New) The process of claim 8 wherein the low refractive index material farthest from said substrate is deposited at an optical thickness of about one-quarter wavelength at a wavelength from 480 to 560 nanometers.

56. (New) The article of claim 33 wherein said first layer has an optical thickness of about one-quarter wavelength at a wavelength from 480 to 560 nanometers.

57. (New) The method of claim 38 wherein said first layer has an optical thickness of about one-quarter wavelength at a wavelength from 480 to 560 nanometers.

58. (New) The coating of claim 39 wherein said first layer has an optical thickness of about one-quarter wavelength at a wavelength from 480 to 560 nanometers.

59. (New) The method of claim 40 wherein said first layer has an optical thickness of about one-quarter wavelength at a wavelength from 480 to 560 nanometers.

60. (New) The coating of claim 43 wherein said first layer has an optical thickness of about one-quarter wavelength at a wavelength from 480 to 560 nanometers.

61. (New) The coating of claim 49 wherein the low refractive index material farthest from said substrate has an optical thickness of about one-quarter wavelength at a wavelength from 480 to 560 nanometers.

62. (New) The coating of claim 50 wherein the low refractive index material farthest from said substrate has an optical thickness of about one-quarter wavelength at a wavelength from 480 to 560 nanometers.